

5           METHOD AND APPARATUS FOR PRODUCING STYRENE BY  
             CATALYTIC DEHYDRATION OF 1-PHENYLETHANOL

ABSTRACT

10          The invention involves a method for producing styrene, using at least two separate reactors, by feeding a 1-phenylethanol-rich reaction mixture to a first reactor, transferring the partially catalytically dehydrated mixture to a second reactor or to a distillation unit, and separating the mixture into a fraction of low-molecular compounds and transporting it to an outlet, and to a fraction containing high-molecular compounds and transporting it to the second reactor, or feeding a part of the catalytically dehydrated mixture to the distillation unit and the other part to the second reactor, optionally recycling a part to the first reactor, and/or optionally transporting a part to another reactor, and/or to the distillation unit or to another distillation unit; provided that part of the reaction mixture of at least one of the reactors is transported to the distillation unit. The invention further pertains to an apparatus for performing this method.

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